

*A*  
*and*

the gate bonding pad which is a part of the gate interconnection line 9. A silicon nitride film serving as the surface protective film 14 is formed by plasma CVD process (referred to hereinafter as P-CVD process) at a temperature of about 300 to 400° C. in an atmosphere of a mixed silane-ammonia gas. Then the IGBT is exposed to radiation for lifetime control thereof and is subjected to heat treatment at a temperature of 300 to 400° C. to eliminate distortion resulting from the radiation.

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Please replace the paragraph beginning at column 2, line 52, to column 3, line 9, as follows:

*A*  
*2*

The silicon nitride film formed by the P-CVD process contains a large amount of hydrogen atoms. For example, the number of Si-H chemical bonds in the silicon nitride film formed by the P-CVD process is  $1.0 \times 10^{22} \text{ cm}^{-3}$  to  $1.6 \times 10^{22} \text{ cm}^{-3}$  by measurement using FT-IR (Fourier transform infrared spectroscopy) technique. The number of Si-H chemical bonds in the PSG film is on the order of  $0.4 \times 10^{22} \text{ cm}^{-3}$ . The hydrogen atoms in the silicon nitride film readily migrate through the surface protective film 14 of silicon nitride, the aluminum electrodes such as the gate interconnection line 9 and emitter electrode 10, the passivation film [17] 12 and the gate insulating film 7 of silicon oxide depending upon the atmospheric temperatures and the polarity and magnitude of the applied voltage to reach a silicon-silicon oxide interface at the surface of the semiconductor body 4 without difficulty. Dangling bonds at the silicon-silicon oxide interface are bonded to hydrogen atoms from the silicon nitride film to form Si-H chemical bonds at the silicon-silicon oxide interface, resulting in an unstable interface state. It takes time to stabilize the interface state, which is considered to cause the difficulty in saturating the varying threshold voltage  $V_{th}$ .

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Please replace the paragraph at column 11, lines 36-38, as follows: